

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/16/06

Date Received: 08/01/06

Project: Filter Dust #4626, PO# M99406, F&BI 608006

Date Extracted: 08/02/06

Date Analyzed: 08/02/06

**RESULTS FROM THE ANALYSIS OF THE SOLID SAMPLES  
FOR GASOLINE, DIESEL AND HEAVY OIL BY NWTPH-HCID  
Results Reported as Not Detected (ND) or Detected (D)**

THE DATA PROVIDED BELOW WAS PERFORMED PER THE GUIDELINES ESTABLISHED BY THE  
WASHINGTON DEPARTMENT OF ECOLOGY AND WERE NOT DESIGNED TO PROVIDE  
INFORMATION WITH REGARDS TO THE ACTUAL IDENTIFICATION OF ANY MATERIAL  
PRESENT

<u>Sample ID</u> Laboratory ID	<u>Gasoline</u>	<u>Diesel</u>	<u>Heavy Oil</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 50-150)
M99406 d 608006-01	ND	ND	D	110
Method Blank	ND	ND	ND	79

ND - Material not detected at or above 100 mg/kg gas, 250 mg/kg diesel and 1,250 mg/kg heavy oil.

d - The sample was diluted.

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 08/16/06

Date Received: 08/01/06

Project: Filter Dust #4626, PO# M99406, F&BI 608006

Date Extracted: 08/03/06

Date Analyzed: 08/04/06

**RESULTS FROM THE ANALYSIS OF A SOLID SAMPLE  
FOR FINGERPRINT CHARACTERIZATION  
BY INDUCTIVELY COUPLED PLASMA (ICP)  
MASS SPECTROSCOPY**

**Samples Processed Using Method 3050**

The Metals Were Found at the Approximate Levels Indicated

Results Reported as µg/g (ppm)

Sample ID: M99406

Laboratory ID: 608006-01

Aluminum	31,000 ppm	Nickel	38,000 ppm
Antimony	<200 ppm	Palladium	<200 ppm
Arsenic	360 ppm	Phosphorous	2,100 ppm
Barium	<200 ppm	Platinum	<200 ppm
Beryllium	<200 ppm	Rhenium	<200 ppm
Boron	1,200 ppm	Selenium	<200 ppm
Cadmium	<200 ppm	Silicon	<10,000 ppm
Calcium	10,000 ppm	Silver	<200 ppm
Chromium	32,000 ppm	Sodium	<200 ppm
Cobalt	650 ppm	Strontium	<200 ppm
Copper	26,000 ppm	Thallium	<200 ppm
Gold	<200 ppm	Tin	1,000 ppm
Iron	190,000 ppm	Titanium	1,000 ppm
Lead	<200 ppm	Vanadium	200 ppm
Magnesium	400 ppm	Zinc	1,600 ppm
Manganese	6,700 ppm	Zirconium	<200 ppm
Mercury	<200 ppm		
Molybdenum	10,000 ppm		

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D.  
Charlene Morrow, M.S.  
Yelena Aravkina, M.S.  
Bradley T. Benson, B.S.  
Kurt Johnson, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
TEL: (206) 285-8282  
FAX: (206) 283-5044  
e-mail: fbi@isomedia.com

August 16, 2006

**DUPLICATE COPY**

**INVOICE # 06ACU0816-2**

Accounts Payable  
Alaskan Copper Works  
628 South Hanford  
Seattle, WA 98134

RE: Project Filter Dust #4626, PO# M99406, F&BI 608006 - Results of testing  
requested by Gerry Thompson for material submitted on August 1, 2006.

1 sample analyzed for HCID by Method NWTPH-HCID @ \$40 per sample	\$ 40.00
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1 sample analyzed for Metals Scan by Method 200.8 @ \$200 per sample	<u>200.00</u>
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Amount Due .....	\$ 240.00
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FEDERAL TAX ID # (b) (6)



608006

## SAMPLE CHAIN OF CUSTODY

ME 08/01/06

A12

Send Report To

GERALD Thompson

Company

Alaskan Copper Works

Address

628 S. Harbor ST

City, State, ZIP

Seattle WA 98134

Phone #

206-382-8339

Fax #

206-382-8309

SAMPLES (signature)

PROJECT NAME/NO. #

Filter dust #626

PO #

M99406

REMARKS

FAX WITH Results

Page # of

TURNAROUND TIME

☐ Standard (2 Weeks)☒ RUSH 28 hrs

Rush charges authorized by:

SAMPLE DISPOSAL

☐ Dispose after 30 days☐ Return samples☐ Will call with instructions

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED										Notes
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	HC-ID	Metals Scan			
M99406	01	8/1/06	1:00	SPGSD	1							X	X			

Friedman &amp; Bruya, Inc.

3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

FORMS\COC\COC.DOC

SIGNATURE

Relinquished by:

Received by:

Relinquished by:

Received by:

PRINT NAME

G. Thompson

Michael Erchul

COMPANY

ACW

FEBI

DATE

8-1-06

L

TIME

2:17 PM

L

AKC-0007306

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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August 16, 2006

Gerry Thompson, Project Manager  
Alaskan Copper Works  
628 South Hanford  
Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on August 1, 2006 from the Filter Dust #4626, PO# M99406, F&BI 608006 project. There are 2 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
ACU0816R